

**ABSTRACT**

Recombinant plasminogen activator inhibitor-1 (PAI-1)  
5 isoforms which lack the reactive center loop and contain  
the complete heparin-binding domain or lack at least a  
portion of the heparin-binding domain are described. The  
rPAI-1 isoforms disclosed herein may be used to modulate  
angiogenesis through blocking release of VEGF from a VEGF-  
10 heparin complex. Furthermore, the rPAI-1 proteins may be  
used to inhibit cell proliferation and migration, induce  
apoptosis, and produce proteolytic fragments corresponding  
to angiostatin kringle 1-3 and kringle 1-4. A truncated  
proteolytic plasmin protein of 34 kDa is also provided.